**Diffusion of Dye through Agar Gel**

**Purpose**

Discuss how the medium (liquid versus solid), and size of a molecule can affect the rate of diffusion.

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| 1. One agar plate |
| 2. Methylene blue crystals |
| 3. Potassium permanganate     crystals |
| 4. Forceps or spatula |

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| **Diffusion of Dye Through Agar Gel** |
| 1. Obtain an agar plate and locate the methylene blue and potassium permanganate crystals.  They should be at the instructor's desk in a small beaker with a spatula. |
| 1. Open the plate and [add a small amount of methylene blue crystals](http://www.usi.edu/science/biology/mkhopper/hopper/BIOL2401/LABUNIT1/01Ex5CellTransp/CellTransport%20Images/crystalplate.jpg) to one side of the plate.  Add the same amount of potassium permanganate crystals to the opposite side of the plate. |
| 1. Observe the plate.  **What happens?  What do we call this process?  Do both both crystals behave the same way?  Why? or Why not?** |
| 1. Once you have recorded your observations, you can discard the agar plate in the trash can.   **DATA:** Record your observations  **CONCLUSION:** Use the questions in number three (above) to write your conclusion. Write in paragraph form, using complete sentences. USE A DICTIONARY IF NECESSARY (I will be marking down for spelling). |

**Material**